Application No.: 10/517,173 Docket No.: AP042-04

## Amendments to the Claims:

1) Please amend claims 1-19.

## **Listing of Claims:**

Claim 1 (Currently amended): Hub (1) with A press-fitted hub system comprising:

a base body formed as a shaft and having at least one region of material

aggregate adapted to have a diameter larger than the diameter of shaft;

and

at least one hub having a hub opening (2) in the a front face (8) for pressing onto a the base body (3), whereby the hub opening (2) has an insertion area (A2) tapering in the a press-on direction, characterized in that in the press-on device, a first cylindrical section (A1) is arranged as viewed between the front face (8) and insertion area (A2), and a second cylindrical section arranged on the opposite side of the insertion area with reference to the first cylindrical section;

wherein the diameter of the first cylindrical section of the hub opening is at least the same size as the largest diameter of the base body, on which the hub is to be pressed.

Claim 2 (Currently amended): Hub (1) according to claim 1, characterized in that the diameter (D1) of the cylindrical section (A1) of the hub opening (2) is at least the same size as the largest diameter of the base body (3), on which the hub (1) is to be pressed. The press-fitted hub system according to claim 1, wherein the material aggregate being adapted to deform when the insertion area and the second cylindrical section is pressed thereon, thereby producing a friction connection between the hub and the base body.

Claim 3 (Currently amended): Hub (1) according to claim 1 or 2, characterized in that the hub opening (2) has a second cylindrical section (A3), whereby the second cylindrical section (A3) with reference to the first cylindrical section (A1) is arranged on the opposite side of the insertion area (A2) The press-fitted hub system according to claim 2, wherein the material aggregate is in the form selected from the group consisting of coils and bars, and wherein the material aggregate can extend either in the circumferential direction of the base body or parallel to the longitudinal axis of the hub.

Claim 4 (Currently amended): Hub (1) according to one of claims 1 through 3 The press-fitted hub system according to claim 1, characterized in that the tapered insertion area—(A2) has a curve profile, whereby the curve profile preferably is formed from

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circular segments with different radii placed on one another, and whereby the radii of the circular segments are smaller toward the first cylindrical section—(A1).

Claim 5 (Currently amended): Hub (1) according to one of claims 1 through 3 The press-fitted hub system according to claim 1, characterized in that the insertion region (A2) has a curve profile, whereby the curve profile preferably is formed by an arch (R), which discontinuously connects to the <u>first</u> cylindrical section (A1) and preferably opens discontinuously or continuously into the second cylindrical section (A3).

Claim 6 (Currently amended): Hub (1) according to one of claims 1 through 3 The press-fitted hub system according to claim 1, characterized in that the insertion area (A2) is formed by a truncated cone, which connects the first cylindrical and second cylindrical sections (A1) and (A3) by means of transition edges (E1) and (E2).

Claim 7 (Currently amended): Hub (1) according to one of claims 1 through 3 The press-fitted hub system according to claim 1, characterized in that the insertion area (A2) is divided into two subsections and both subsections are formed in the shape of a truncated cone along the longitudinal axis—(4) each having a cone angle, and that the cone angle—(K1) of—the\_a first subsection—(A2') arranged toward\_the first cylindrical section—(A1) is greater than the cone angle—(K2) of—the\_a second subsection—(A2'') arranged toward\_the second cylindrical section—(A3).

Claim 8 (Currently amended): Hub (1) according to one of claims 1 through 7 The press-fitted hub system according to claim 7, characterized in that the diameter (D2) of the second cylindrical section is at least the same size as the diameter of the base body (2), whereby the diameter (W2) corresponds to the diameter of the unmachined base body (2).

Claim 9 (Currently amended): Hub (1) according to one of claims 1 through 8 The press-fitted hub system according to claim 8, characterized in that the length of the first cylindrical section (A1) is about 2 % to 30 % of the entire length (L) of the hub (1).

Claim 10 (Currently amended): Hub (1) according to one of claims 1 through 9 The press-fitted hub system according to claim 9, characterized in that the length of the second cylindrical section—(A3) is about 2 % to 30 % of the entire length—(L) of the hub (2).

Claim 11 (Currently amended): Hub (1) according to one of claims 1 through 10 The press-fitted hub system according to claim 10, characterized in that the length of the insertion area-(A2) includes 40 % to 96 % of the entire length-(L) of the hub-(2).

Claim 12 (Currently amended): Hub (1) according to one of claims 7 through 11 The press-fitted hub system according to claim 11, characterized in that the ratio of length of the subsection-(A2') to the subsection-(A2") lies between 0.1 and 10.

Claim 13 (Currently amended): Hub (1) according to one of claims 7 through 12 The press-fitted hub system according to claim 12, characterized in that the first conical angle (K1) is about 10° to 30°.

Claim 14 (Currently amended): Hub (1) according to one of claims 7 through 13 The press-fitted hub system according to claim 13, characterized in that the second conical angle-(K2) is about 1° to 15°.

Claim 15 (Currently amended): Hub (1) according to one of claims 1 through 14 The press-fitted hub system according to claim 14, characterized in that the hub—(1) contains at least one recess—(7) extending over the entire length—(L) of the hub—(4), whereby the recess—(7) defines a part of the periphery of the hub opening—(2) and the recess—(7) extends radially outward at a maximum to the diameter—(D1).

Claim 16 (Currently amended): Cam (9) with a hub (1) according to one of claims 1 through 14 The press-fitted hub system according to claim 14 further comprising at least one cam.

Claim 17 (Currently amended): Camshaft including at least one cam (9) according to claim 16 and\_base body (3), in particular, a shaft, on which at least one cam (9) is pressed on The press-fitted hub system according to claim 16 further comprising a camshaft including the cam and hub, wherein the base body is a shaft on which the cam is pressed thereon.

Claim 18 (Currently amended): System including A press-fitted hub system comprising:

- a shaft base body (3), in particular, a shaft,; and
- a cam—(9), whereby the cam—(9) has having a hub—(1) in the in a front face—(8) for pressing onto the base body—(3), and whereby, and wherein the hub—(1) has a tapered insertion area—(A2), characterized in that upon pressing on of the cam—(9), the distance of the point for a first contact between the greatest outer diameter of the base body—(3) and the insertion area—(A2) is arranged—at least 2 % to 30 %, preferably at least 3 % to 20 %, and further preferably, at least 5 % to 15 %, of the entire length—(L) of the hub—(1) from the front face—(8);
- wherein the length of the first cylindrical section is about 2 % to 30 % of the entire length of the hub;
- wherein the length of the second cylindrical section is about 2 % to 30 % of the entire length of the hub;
- wherein the length of the insertion area includes 40 % to 96 % of the entire length of the hub.

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Claim 19 (Currently amended): Camshaft, including at least one cam (9), whereby the cam (9) has a hub (1) with A press-fitted hub system comprising:

- a base body formed as a shaft and having at least one region of material aggregate adapted to have a diameter larger than the diameter of shaft;
- a camshaft having at least one cam, wherein the cam having a hub opening—(2) for receiving—a base body—(3) formed as a shaft, whereby the base body, wherein the hub opening—(2) has an insertion area—(A2) tapered in the press-on direction, characterized in that, viewed in the press-on direction, a first cylindrical section—(A1) is arranged between the front face—(8) and the insertion region—(A2);
- wherein the hub further comprising a second cylindrical section, the second cylindrical section with reference to the first cylindrical section is arranged on the opposite side of the insertion area, and
- wherein the material aggregate being adapted to deform when the insertion area and the second cylindrical section is pressed thereon.